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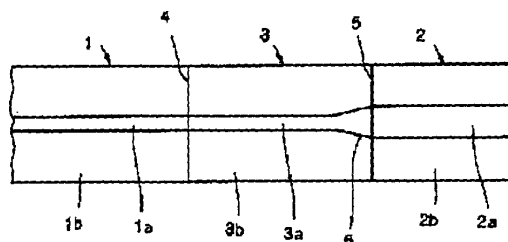
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INVENTOR : OGURA KUNIO;

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TITLE : CONNECTING STRUCTURE AND  
CONNECTING METHOD OF  
DISPERSION COMPENSATION  
OPTICAL FIBER



ABSTRACT : PURPOSE: To make it possible to connect a dispersion compensation optical fiber having a clad consisting of pure silica to an ordinary single mode optical fiber having a clad consisting of pure silica with low loss.

CONSTITUTION: The dispersion compensation optical fiber 1 having the clad 1b consisting of the pure silica and the single mode optical fiber 2 having the clad 2b consisting of the pure silica are fusion-spliced by interposing an intermediate optical fiber 3 having the same mode field diameter as the mode field diameter of the dispersion compensation optical fiber 1 and having the clad 3b consisting of fluorine doped silica and the core 3a consisting of  $\text{GeO}_2$ -doped silica between both optical fibers 1 and 2 in the case of connecting both optical fibers 1, 2. The mode field diameter of the intermediate optical fiber 3 is expanded so as to meet the mode field diameter of the single mode optical fiber 2 by heating the juncture 5 of the intermediate optical fiber 3 and the single mode optical fiber 2.

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